

AVIATION

MARCH 5, 1923

Issued Weekly

PRICE 10 CENTS



Novel African Excavations: Shelters for Gliders dug in the sand near Biskra, Algeria

VOLUME
XIV

SPECIAL FEATURES

Number
10

SURVEY OF AVIATION IN ITALY
AERONAUTICAL STANDARDIZATION—II
THE BRITISH IMPERIAL AIRSHIP SCHEME
ITALIAN AERONAUTIC REORGANIZATION PLAN

THE GARDNER, MOFFAT CO., INC.
HIGHLAND, N. Y.
225 FOURTH AVENUE, NEW YORK

MEASURING UP TO A FAMOUS NAME

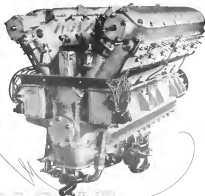
BACK of the name "Wright" lies the nineteen-year-old tradition to bring to the advancement of flying only the highest engineering principles and experience.

Accurately measuring the several phases of progress through which aviation has passed are the milestones of Wright Achievement covering the period of these nineteen years.

Only with a production organization capable of interpreting this wide engineering experience in terms of quality product could this company feel that it truly represented the impulse and high ideals of its founders.

WRIGHT AERONAUTICAL CORPORATION
PATERSON, NEW JERSEY, U.S.A.

Model T-3 engine, 16 HP.
Note: engine, part of
propulsion system, of
first Wright airplane, the
first in the U.S. Army.



"The Manufacturer of
Incomparable Service"

WRIGHT

MARCH 5, 1923

AVIATION

VOL. XIV, NO. 10

Member of the Audit Bureau of Circulations

CONTENTS

| | | | |
|-------------------------------------------------|-----|------------------------------------|-----|
| Editorial | 261 | A S M E for Civil Air Person | 272 |
| History of Commercial Aviation in Both | 262 | New World's Speed Record | 273 |
| Continuation "Double" of Foreign Civil Airplane | 263 | Ask Lightning Process for Ballroom | 274 |
| Distance Flight of Airplane | 265 | The Model Airplane | 275 |
| The British Imperial Airship Scheme | 266 | U. S. Civil Service Examination | 276 |
| Alaska Effect on Air Speed Industries | 267 | Wings 1923 Declared | 277 |
| Airplane in Spain | 268 | R. Wade Person with Air Mail | 278 |
| Aeronautical Standardization—31 | 269 | Further Tests of D. H. Helicopter | 279 |
| Air Mail for Fast Travelers | 270 | World's Balloon Records | 280 |
| The Italian Aeronautical Standardization Plan | 271 | The Aero "Aluminum" Bomber | 281 |
| Aeronautical Patents | 272 | The Nieuport Air Mail | 282 |
| General Aviation Theory | 273 | Canadian Air Certificates | 283 |
| General Service 744 on Air Transport | 274 | Mooney as German Airway Company | 284 |
| Revised 3-Section 104 by "Rouge" Airplane | 275 | Airline and Navy Air News | 285 |

THE GARDNER, MOFFAT COMPANY, Inc., Publishers

HIGHLAND, N. Y.

225 FOURTH AVENUE, NEW YORK

Subscription price: Four dollars per year. Single copies
ten cents. Canada, five dollars. Foreign, six dollars
a year. Copyright 1923, by the Gardner, Moffat Com-
pany, Inc.

Entered every Monday. Form class ten days previously
Entered as second class matter Jan. 25, 1915, at the
Post Office at Highland, N. Y., under act of March
3, 1879.

THOMAS-MORSE AIRCRAFT CORPORATION

CONTRACTORS TO U. S. GOVERNMENT

ITHACA.



NEW YORK



Truth Mark

DEPENDABILITY

During fourteen years of continuous airplane manufacturing, the Glenn L. Martin Company has established a reputation for leadership in the industry.

Among the new types brought out each year, the model "T-1", in 1913, was one of the first training planes adopted by the U. S. Army. During the World War, the same organization was depended upon to design and produce the first all-American bombing plane - the famous Martin Bomber.

Recently when the Navy wanted a new, all-metal observation type plane, again it was the Martin organization who was called on to produce it. The result is that for the first time in American aeronautics, a metal airplane has been built which exceeds in every particular the required specifications - it is *under* weight and *over* all factors of safety.

The reputation of the Glenn L. Martin Company for *dependability* is no less than its reputation for *quality* in its product.

THE GLENN L. MARTIN COMPANY

Cleveland

Builders of Quality Aircraft since 1909

L. D. GARDNER
PRESIDENT
W. D. MURPHY
VICE PRESIDENT
W. I. SCAMM
TREASURER
GEORGE MURPHY
MANAGING EDITOR

LABORER OF THE
VICTORY E. CLARK
EDWARD P. WATSON
RALPH H. UNDER
CONSTRUCTION EDITOR

AVIATION

Vol. XIV

MARCH 3, 1935

No. 39

Air Mail Efficiency

IN the address delivered at the recent luncheon of the American Executive Association at Washington, D. C., by the Honorable, Col. Frank Lewis, commanding director of the Division of Air Mail, and among other things that one of the main factors of successful mail air transport was to get the largest possible mileage out of aircraft. He illustrated the point by contrasting the performance of one of his ships, which covered 115,000 miles in eight and a half months, with the best land European mailer, which is 60,000 miles in three years. He also made the statement that the American mail planes carry an average of 66 miles per day of operation—a figure which is obtained by dividing the total air mail mileage flown by the number of days covered by the Air Mail Service.

From the transportation viewpoint the method of computing commercial efficiency is sound, but it does not take into account the pattern of our air mail operations. To begin with, the Air Mail Service operates with maximum speed from the Army Air Service, which results in cost saving that of establishing them for general service. It is natural that as the supply of these aircraft is nearly exhausted the Air Mail would receive a lower large number of them, not only for operation but also as a reserve. Consequently there are now on hand about twenty of these ships, very few of which are in good flying condition. As for their ships and their service, owing to the policy of the Air Mail to assign to each pilot a personal ship.

The total mileage flown by the Air Mail on the transcontinental route is 2800 miles per day, that is, only slightly less than the combined daily mileage of the British and French air lines at the present time, for the French Airways in France and Constantinople do not operate during the winter months. During the winter months the Air Mail flies twenty-four ships daily, giving an average mileage per ship of 233 miles. The shortest leg of the route is from St. Louis to St. Paul, 305 miles, while the longest leg is from the winter to that between Cleveland and Chicago, 335 miles. Under the current weather conditions of the winter the mail planes are not flown through from New York to Cleveland, planes are changed at Buffalo, where on the coast the ships only take on gas, the same ship flying through to Cleveland. The same remark applies to the Chicago-Orlando and Orlando-Chicago stages. The Air Mail Service believes that by so doing they get better results and they are being better cared of their pilots, for security of service is the important air point. During the summer months the air mail pilots make through trips of much greater length, the longest leg, between Omaha and Cheyenne, being 303 miles. Only airplane ships are operated in the summer, giving an average of 282 miles per ship per day.

It may still be argued that this is a low figure to get out

of transport aircraft, considering that on the London-Panama service a return trip of 500 miles is the normal performance, while some mailships fly twice that distance. But topographical conditions are totally different on the European route as compared to our transcontinental service. There, except for occasional fogs over England, conditions are ideal for flying, the air is rolling steadily along many natural landing fields. Here, taking as an example the New York-Cleveland route alone, we have a solid belt of wooded mountains, about 200 miles wide, with emergency fields chiefly north of their absence. Over the British conditions are still worse.

From the above it will be understood why the Air Mail, in its endeavor to secure maximum safety and reliability, must sacrifice the daily mileage of its ships, which again results in a large saving of ships.

To make a fair comparison between the Air Mail Service and the British Air Lines, the government subsidy would also have to be considered. As the foreign air lines receive about one dollar per mile flown from their respective governments, it will be apparent that a fair comparison would be extremely difficult. However that be, it is in our opinion a fair statement to make that the United States Air Mail Service has established more to commercialize the mail than any other for rapid commercial and regular transportation than any other enterprise in the world.

The Window Bill Not Passed

THE sudden part of the shadow of Congress, under the administration of the Senate, is that there is to be no legislation this session for the regulation of flying or for the establishment of any regulating agency in the Department of Commerce. The Window Bill is dead until next December.

Just at a time when everyone interested in aeronautical development had hoped that at last there was to be some movement in the way which would govern the specific matter of flying in the country, a legislative jam has prevented the passage of this exceedingly important bill. The blame must rest not where it has rested for the last four years—on Congress.

Chairman Samuel Window has worked hard to prepare a bill that would satisfy all the governmental agencies as well as the aeronautical agencies and the public. But the bill was introduced in the late fall, hearings to be held and to be voted on by the House. Hence, neither year could pass before almost as have any real action. Meanwhile the United States still remains one of the very few countries where air transportation must be held back for the lack of national laws—meaning with Great Britain and Britain.

THE Aircraft Service Directory

WHERE TO PROCURE EQUIPMENT AND SERVICES

K-L FUEL SYSTEM

PIONEER INSTRUMENT COMPANY
MAIN OFFICE AND FACTORY BROOKLYN, N.Y.
WASHINGTON, D.C. PHOENIX, ARIZ. SAN FRANCISCO, CALIF.
AND OTHER MAJOR CITIES. WE HAVE A LARGE STOCK OF MATERIAL. OUR WORK IS GUARANTEED.



If you want

anyone (Purdue, etc.) to make parts, or complete up-to-date plans, you will get prompt attention by writing
G. ELIAS & BRO., Aircraft Dept., Buffalo, N. Y.



**WRITE FOR OUR
SPECIAL PRICE LIST
CANUCK, JN., AVRO
AND OX-5 PARTS**

GRISON AIRCRAFT LIMITED
100 KING ST. EAST, TORONTO, CANADA

*If you are in the market for an
AIRPLANE OR FLYING BOAT
of any type*

It will pay you to write us.

JAMES LEVY AIRCRAFT COMPANY
2215 Indiana Ave., Chicago

SPECIAL

We have on hand a few copies of the
AIRCRAFT YEAR BOOK—1932
this new one for bid for \$1.00. Regular price \$1.25

Send for one immediately.

AVIATION - 225 Fourth Ave., New York



THE B-4 MOTOR

The best light motor on the world
today, up to 100 hp. and in 1000 cc.
No-piston. Complete with Luffkin
Governor and Special Case. 1000
cc. 100 hp. 1000 cc. 100 hp.

ROGERS AIRCRAFT
Factory Room 1, Box 2,
ST. MARYS, ILL.

PARTNER MECHANIC

I will sell half interest in property to a real mechanic on OX-5
and (Dodge, etc.). I have a Standard last one with 22.5
and an M-1 with 22.5 and 22.5. (I will sell for 1000)
for 1000. I have been working in the same place for 10
years. I will sell for 1000. I will sell for 1000. I will sell for 1000.

H. M. JONES, Old Orchard Beach, Me.

Advertising in

AVIATION

Brings Results

Let us prove this statement

For RELIABLE RESULTS and a SQUARE DEAL,
USE

BOFES | **TITANINE** | **VARNISH**
GLAS | **AND**
REINFORCED | **CHAMBERS**

MADE BY
TITANINE Inc., Union, Union County, N. J.

Edward P. Warner

Consultant in Aeronautical Engineering
and
Controlled Operations of Aircraft.
Mass. Institute of Technology
Cambridge, Mass.

FIVE-PASSENGER BREGUETS

REMARKS ON LIGHTER MOTORS
Leading Model in 1932. High speed (100). (United States
and Canada). (United States and Canada). (United States and Canada).
100 per hour. High speed (100). (United States and Canada).
100 per hour. High speed (100). (United States and Canada).

W & TACKER
WAFPORE, ILL.

GLIDERS

To designers and builders, we offer complete facilities for
designing, building, testing, all kinds of materials in stock,
wood and machine shops, aeronautical library, drafting
room. Very reasonable rates.

AIR TRANSPORT EQUIPMENT, Inc.
415 BOWLING GREEN CITY—New York, N.Y.

*These spaces are backed up by a
special service*

Ask for Information

CURTISS OX-5 ENGINES

Original prices.
2 engine 200 hp. 1000 cc.
2 engine 400 hp. 1000 cc.
4 engine 1000 hp. 1000 cc.
4000 cc. 1000 hp. 1000 cc.
4000 cc. 1000 hp. 1000 cc.
4000 cc. 1000 hp. 1000 cc.

BOEING AIRPLANE COMPANY

Manufacturers of

EXCLUSIVELY DESIGNED

**SEAPLANES
FLYING BOATS
AIRPLANES**

CONTRACTORS TO UNITED
STATES GOVERNMENT

GEORGETOWN STATION

SEATTLE

WASHINGTON

NOTICE: All rights reserved. No part of this publication may be reproduced without permission.





Pioneer designers and manufacturers
of
AEROPLANES, FLYING BOATS
SEAPLANES, AERO ENGINES

Contractors to the United States Government

CURTISS AEROPLANE AND MOTOR CORPORATION
GARDEN CITY, NEW YORK

